



**BIOBASED PRODUCTS**  
**Up-date of USDA Activities**

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**February 21, 2002**

# BIOBASED PRODUCTS DEFINITION

***USDA embraces the definition provided by EO 13101:***

**A commercial or industrial product  
- other than food or feed -  
that utilizes biological products  
or renewable domestic agricultural  
- plant, animal, and marine -  
or forestry materials**

**Source: Executive Order 13101, 1998 - "Greening the Government through Waste Prevention, Recycling, and Federal Acquisition"**

# SIGNIFICANCE OF BIOBASED PRODUCTS

## ***USDA PERSPECTIVE***

- ⊙ **new business opportunities**
- ▮ **economic development in rural areas**
- ▮ **value-added products from new uses and utilization**
- ▮ **diversification in agriculture**
- ▮ **sustainable development - renewable resource products**
- ▮ **stimulation of R&D**

# SIGNIFICANCE OF BIOBASED PRODUCTS

## ***PROCUREMENT PERSPECTIVE***

- ☀ ***performance advantage*** - as good as or better than conventional counterparts
- ▢ ***meet environmental goals*** - enable agencies to purchase less toxic and non-hazardous products that support solid waste reduction and other objectives

# SIGNIFICANCE OF BIOBASED PRODUCTS

## ***NATIONAL PERSPECTIVE***

- ▣ **Provides the U.S. with a reliable raw material supply for industrial products used by defense and other government agencies as well as industry and consumers.**
- ▣ **This raw material is based on renewable, critical raw materials provided by the American farmer.**



*BIOBASED*  
- AN ENVIRONMENTAL ATTRIBUTE -

**ACTIVITIES TO DATE:**

- **JG-ENVATT AGREED TO CONSIDER BIOBASED PRODUCTS in 1998**
- **CTC ISSUED A DRAFT FINAL REPORT, JAN 99**
  - **2 OF 3 CRITERIA HAVE BEEN MET**



***BIOBASED***  
**- AN ENVIRONMENTAL ATTRIBUTE -**

***Government Policy - Biobased Products and  
Bioenergy***

**EO 13101**

**BIOMASS R&D ACT OF 2000**

**CONFERENCE REPORT 107-350 to H.R. 3338**  
**(P. L. 107-117)**

**FARM BILL (pending)**  
**H.R. 2646**

# *BIOBASED* - AN ENVIRONMENTAL ATTRIBUTE -

## *Government Policy - Biobased Products and Bioenergy*

### EO 13101

- ▣ **expanded acquisition planning and planning and affirmative procurement programs to include biobased products**
- ▣ **USDA assigned responsibility to publish the Biobased Products List**



# *BIOBASED* - AN ENVIRONMENTAL ATTRIBUTE -

## *Government Policy - Biobased Products and Bioenergy*

### BIOMASS R&D ACT OF 2000

- **promotes government-wide coordination of R&D**
- **promotes government procurement of biobased products**

***BIOBASED***  
**- AN ENVIRONMENTAL ATTRIBUTE -**

***Government Policy - Biobased Products and  
Bioenergy***

**Conference Report 107-350 to H.R. 3338**  
**(P. L. 107-117)**

- ▣ **DOD FY02 Appropriations directs DOD to increase usage**
- ▣ **DOD and USDA to collaborate to support independent testing**
- ▣ **Facilitate inclusion on DLA lists of approved items for purchase**



***BIOBASED***  
**- AN ENVIRONMENTAL ATTRIBUTE -**

***Government Policy - Biobased Products and  
Bioenergy***

**Farm Bill H.R. 2646 - Biobased Products  
Purchasing**

- **Pending legislation**
- **Establishes mandatory procurement**
- **Strongest language to-date**

# *BIOBASED*

## - AN ENVIRONMENTAL ATTRIBUTE -

### *Cost Benefits*

- **QUALITATIVE BENEFITS** - shipping, handling, service life, material use, waste disposal, etc.
- **LIFE CYCLE COSTS** - e.g. Biodiesel
- **SUSTAINABILITY MODELS** - e.g. NIST's BEES Model for Economic and Environmental Sustainability

# *BIOBASED*

## - AN ENVIRONMENTAL ATTRIBUTE -

### *Attribute Must Be Definable*

- ⊙ **FEDERAL REGISTER NOTICE AUG 13, 1999**
  - suggested categories and criteria for each category
- ▮ **THIS CRITERIA HAS NOT BEEN MET**
  - response to Notice was insufficient

# BIOBASED PRODUCT CATEGORIES

- ▣ **Adhesives**
- ▣ **Alternative Fuels/Additives**
- ▣ **Bioplastics/Polymers/Films**
- ▣ **Construction Materials/Composites/Plastic Lumber**
- ▣ **Inks**
- ▣ **Landscaping Materials/Composted Wastes**
- ▣ **Lubricants/Functional Fluids**
- ▣ **Paints/Coatings**
- ▣ **Solvents/Cleaners**
- ▣ **Sorbents**
- ▣ **Tree-free Paper/Packaging/Alternative Fibers**

# BIOBASED PRODUCT CATEGORIES

## *Products in Each Category Must:*

- **meet an established minimum biobased content (TBD)**
- **be produced from sustainable and managed resources**
- **be commercially available**
- **be reasonably priced**
- **meet appropriate performance standards/specifications**
- **meet at least 1 of the 5 EPP Guidelines published by EPA**
- **be a new product or a new use derived from a conventional agricultural or forestry material, or be derived from a new crop**

# BIOBASED PRODUCT CATEGORIES

## *Product Performance and Validation - Examples*

- ▢ **ALTERNATIVE FUELS and ADDITIVES:**
  - **ASTM Standard for Ethanol**
  
- ▢ **BIOPLASTICS:**
  - **ASTM Standard for Biodegradable Plastics**
  - **ASTM Standard for Biobased Plastics**
  
- ▢ **FUNCTIONAL FLUIDS:**
  - **MIL SPEC for biodegradable hydraulic fluids**
  - **MIL SPEC for biobased hydraulic fluids**



# CURRENT USDA ACTIVITIES

## □ ***ELECTRONIC SOURCE BOOK***

- ***'Prototype'*** is functional and on-line
- **Modifying attributes to be “% Biobased Content” only**
- **Automated vendor registration**

**<http://www.usda-biobasedproducts.net>**

## □ ***PREPARING REVISED FEDERAL REGISTER NOTICE***

- **Subject matter experts recruited and providing input**
- **JG-ENVATT invited to be part of this activity**

# UPCOMING USDA ACTIVITIES

- ***INVITE INDUSTRY COMMENT*** - March Target
  - **Descriptions and definitions of each category**
  - **Minimum % Biobased Content for each category**
  
- ***PUBLISH PROPOSED RULE*** - April Target
  - **Categories and criteria published in Federal Register**
  - **Established minimum biobased content for each category**
  - **Reference to existing specs/standards as appropriate**
  
- ***FINALIZE ELECTRONIC SOURCEBOOK*** - May Target
  - **Finalize structure and content**
  - **Validate functionality**

# DISCUSSION and CONTACTS

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